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NATIONAL WEATHER SERVICE INSTRUCTION 80-701
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Science and Technology
River Forecast Center Development Management

River Forecast Center Development Management Process

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SUMMARY OF REVISIONS: This directive supersedes NWSI 80-701, "River Forecast Center Development Management Process" dated August 26, 2003 and recertified July 26, 2004. The following revisions were made to this instruction:

(1) Added language to include participation of NWS partners on teams (Section 5.1).

(2) Clarified reporting requirements (Section 7).

    signed by   September 12, 2005
Gary Carter   Date
Director, Office of Hydrologic Development

River Forecast Center Development Management Process

1.   Introduction. This instruction provides details on the implementation of the National Oceanic and Atmospheric Administration's National Weather Service (NWS) Policy Directive 80-7 on River Forecast Center (RFC) Development Management (RDM). The objective of Office of Hydrologic Development's (OHD) RDM program is to manage science and software development among RFCs to ensure the efficient and economical use of NWS resources to support the Hydrologic Services Program. This instruction describes the process for managing RFC development activity.

2.   RFC Development Manager. The RFC development manager coordinates with the Office of Climate, Water, and Weather Services / Hydrologic Services Division (OCWWS/HSD), regional hydrologic services units, OHD's Hydrology Laboratory (HL) , RFCs, and other offices, as needed, to manage RFC development. The RFC development manager is responsible for:
    •   Identifying RDM projects
    •   Managing RDM projects
    •   Facilitating coordination among developers
    •   Tracking progress and providing reports

- Maintaining the OHD-RDM web page

3.   RDM projects. RDM projects can be identified and addressed at any time.   Projects take on two main forms:

- Development projects - These projects focus on software development to infuse new science or techniques into operations.
- Investigative projects - These projects investigate timely science, technology, or operations issues and may result in status, recommendation, requirements, and/or other reports. They may also include a presentation.

4.   Identification of RDM projects. Requirements for RDM projects come from three main sources:
- Developing and Sharing RFC Applications Process (NWS Instruction 80-702)
- OCWWS-HSD/regional headquarters managed hydrology requirements process
- Enterprise-wide Issues

4.1   Developing and Sharing RFC Applications Process. RFCs may initiate and carry-out development projects with local and regional approval. The process of collaborative RFC development and distribution of science and technology applications is outlined in NWS Instruction 80-702.

4.2   OCWWS-HSD/Regional Headquarters Managed Hydrology Requirements Process. As part of the hydrology requirements process, the regions may offer resources to address high priority items from the request list that OHD will not have the resources to cover. These items are candidates to become RDM projects.

4.3   Enterprise-wide Issues. These requirements may come from other units of the NOAA or NWS headquarters organization resulting from service assessments, policy changes, AWIPS evolution, etc. and are determined by the RFC development manager, in consultation with the OHD director, to be best handled by an RDM team.

5.   RDM Project Process for National Requirements and Enterprise-Wide Support. Projects identified by the RFC development manager through pathways 4.2 and 4.3 (above) will follow the process outlined below. Projects initiated by RFCs will follow the process outlined in NWS Instruction 80-702.

5.1   Form a team. The RDM will develop team charter and solicit/accept resources from regions, OCWWS HSD, OHD, other HQ offices, and NWS partners to form a team. Projects may involve resources from OHD, one or more RFCs, other NWS offices, or NWS partners.

5.2   Develop Project Plan. The team will develop a project plan and allocate tasks to team members.

5.3   Conduct Team Business. The team will conduct business through conference calls and/or meetings. Meeting minutes will be distributed to team members and the RFC development manager.

5.4   Deliver Final Products. The destination of the team's products depend on its purpose. Development teams will deliver their software as either local applications (to the Local Applications Database) or to OHD for inclusion into AWIPS. Applications will be delivered by RFCs, HL, or the RFC development manager, as appropriate. Investigative teams will deliver their final report and/or presentation to the group identified in the team charter.

6.   Facilitate Coordination Among Developers. The RDM will facilitate coordination among RFC developers by:

- Integrating RFC development into OHD's software engineering process, where appropriate, to allow RFCs to develop/update nationally baselined software.
- Developing coding standards and software development process guidelines
- Providing standardized NWSRFS development environment to RFCs including updated NWSRFS libraries
- Providing information about plans of other NWS development organizations

7.   Track Progress and Provide Reports. Progress on the RFC development projects will be tracked on a regular basis.   The RDM will report progress on projects via the OHD reports to NWS director, a quarterly report, and the OHD - RDM web page.   The web page will describe all current RDM projects and their status. The quarterly report will be posted on the RDM website and sent to the regions and OCWWS/HSD.